REVISION OF AUSTRALIAN CORANUS CURTIS (HETEROPTERA: REDUVIIDAE: HARPACTORINAE)

M.B. MALIPATIL Northern Territory Museum of Arts and Sciences, GPO Box 4646, Darwin, NT 5794, Australia.

ABSTRACT

Eight new species, Coranus fuscatus sp. nov., C. aridellus sp. nov., C. bicoloratus sp. nov., C. fuscilineatus sp. nov., C. westraliensis sp. nov., C. nigritus sp. nov., C. monteithi sp. nov., and C. dalyensis sp. nov. are described from Australia. Coranus australicus Reuter, 1881 is synonymized with Colliocoris griseus var. sydnicus Mayr, 1866, and the latter elevated to species level. Two species, Austrocoranus mundus Miller, 1954 and Eyreocoris distinctus Miller, 1951 are transferred to the genus Coranus Curtis. A key to the Australian species is given. Lectotypes have been designated for C. trabeatus Horváth. The genera Austrocoranus Miller, 1954 and Eyreocoris Miller, 1951 are synonymized with the genus Coranus.

KEYWORDS: taxonomy, Heteroptera, Reduviidae, Coranus, new species, Australia.

INTRODUCTION

Coranus Curtis is a large genus with more than 40 described species from all zoogeographical regions. Prior to this study the genus was represented in Australia by the following described species: callosus Stål, trabeatus Horváth, erythrueus (Stål), granosus Stål, australicus Reuter and griseus var. sydnicus (Mayr).

Two monotypic genera *Austrocoranus* Miller, 1954 and *Eyreocoris* Miller, 1951, after detailed examination have been

synonymized with Coranus.

Several species of the genus, particularly callosus, sydnicus, mundus Miller, distinctus Miller and nigritus sp.nov., exhibit wing polymorphism, viz. macroptery — submacroptery (M), brachyptery (B) or microptery (M1). The wing modifications may be found even within one geographic population. Normally there is correlation between the modification of the wings and those of some other structures, particularly the scutellum and pronotum. From macroptery to microptery the scutellum and the pronotum, particularly the posterior lobe area, tends to become shorter, the head generally appears narrower and longer in proportion to pronotum, and the ocelli smaller.

All measurements are in millimetres. In all pinned specimens the fourth antennal segment is strongly curved, hence no measurement was taken.

The following abbreviations are used for the names of the museums and other institutions where the specimens are held: AM Australian Museum, Sydney; ANIC Australian National Insect Collection, Canberra; BM British Museum (Natural History), London; MV Museum of Victoria, Melbourne; NSWDA New South Wales Department of Agriculture, Rydalmere; NTM Northern Territory Museum, Darwin; QM Queensland Museum, Brisbane; SAM South Australian Museum, Adelaide; UQ University of Queensland Insect Collection, Brisbane; WAM Western Australian Museum, Perth.

SYSTEMATICS

Genus Coranus Curtis

Coranus Curtis, 1833: 453-4 (type-species Cimex subapterus De Gecr, 1773, designated by Curtis 1833:453).

Eyreocoris Miller, 1951:953-955. Syn.nov. Austrocoranus Miller, 1954:237. Syn.nov. The genus may be characterized by the following:

Diagnosis. Body elongate, widened posteriorly, covered with fine pubescence in addition to long bristly hairs. Head dorsally with transverse impression in front of occlli and almost near hind margin of eyes; labium in repose not exceeding fore coxae, 3 segmented, strongly curved. Pronotum with distinct transverse impression separating lobes,

margin in front of scutellum concave; scutellum triangular, distal area bluntly rounded or pointed. Fore femora moderately incrassate, unarmed, surface even or ridged, tarsi 3 segmented. Hemelytra fully covering or exceeding abdomen in macropters, greatly abbreviated in micropters.

Male genitalia: Pygophore with a pair of processes on posterior end; paramere lateraally flat, particularly on distal area; aedeagus with sclerotized dorsal phallothecal sclerite. endosoma not differentiated into conjunctiva and vesica, armed with spines of varying sizes arranged in two irregular series, spine number in a series variable even within one specimen.

Notes. Miller described the monotypic genera Eyreocoris and Austrocoranus in 1951 and 1954 respectively based only on scanty material of micropterous form. He commented that the affinity of the former genus is doubtful and the latter is closely allied to Coranus. In the present study I have examined a long series of specimens of both submacropterous-macropterous and micropterous forms and found no major distinguishing characters, including of male genitalia, between these two genera and the Coranus. All characters which Miller (1954) noted as distinguishing Austrocoranus from Coranus are only minor variations between the wing morphs. I therefore synonymize Eyreocoris and Anstrocoranus with Coranus.

Included Australian species: Coranus erythraeus (Stål, 1863) Coranus sydnicus (Mayr, 1866) Coranus callosus Stål, 1874 Coranus granosus Stål, 1874 Coranus trabeatus Horváth, 1902 Coranns mundus (Miller, 1954) Coranus distinctus (Miller, 1951) Coranus fuscatus sp.nov. Coranus aridellus sp.nov. Coramis bicoloratus sp.nov. Coranus fuscilineatus sp.nov. Coranus westraliensis sp.nov. Coranus nigritus sp.nov. Coranus monteithi sp.nov. Coranus dalyensis sp.nov.

Key to Australian Species of Coranus

1. Larger insects (body > 15 mm) .. 2 Smaller insects (body < 15 mm) . 3 2(1). Black insects distinctus

_	Yellow insects erythraeus
3(1).	Scutellum with median earina api- cally broadly rounded, not pointed;
	paramere of male in apical 1/3 broadened and spatulate 4
_	Scutellum with median carina api- cally gradually pointed and pro- duced; paramere of male in apical ¹ / ₃ not distinctly broadened and spatu-
	late 6
4(3).	Posterior lobe of pronotum, corium and broad median and lateral areas on abdominal sternum reddish
	trabeatus

	_	Not as above
c 1 y	5(4).	Connexivum uniformly coloured, not banded with dark and pale markings fuscatus
s o	_	Connexivum banded with dark and pale markings callosus
e h	6(3).	Fore femoral basal ½-2/3 surface almost even or smooth 7
-		Fore femoral basal ½2-2/3 surface distinctly ridged
s S	7(6).	Connexivum banded, with dark and pale markings 8
S	_	Connexivum uniformly pale 10

	Connexivant annormity paic 10
8(7).	Pronotum with minute tubercles (apex of scutellum abruptly pro-
	jected dorsally or postero-dorsally)
	granosus
_	Pronotum without tubercles, but

only with punctures 9 uniformly 9(8). throughout; pronotum with posterior lobe ca 2× as long as anterior lobe aridellus

Corium with basal 1/2-2/3 paler than apical area; pronotum with posterior lobe $< 2 \times$ as long as anterior lobe bicoloratus

Femora with dark longitudinal areas; 10(7). (pygophore processes of male notched at about midlength) .. fuscilineatus Femora uniformly coloured, without longitudinal dark areas 11

11(10). Fore and mid tibiae with subproximal pale ring westraliensis Fore and mid tibiae without subproximal pale ring nigritus

- 12(6). Connexivum almost uniformly pale monteithi

 Connexivum banded, with alternate

- Median carina on apieal part of seutellum not strongly curved upwards, coloured pale in contrast to fuseous rest of seutellum...sydnicus

Coranus callosus Stål (Figs 1-7)

Coranus callosus Stål, 1874:19.

Type material. HOLOTYPE - o' M, "Australia", callosus Stål, "Typus", in Naturhistoriska Riksmuseet, Stockholm.

Additional Material. AUSTRALIAN CAPITAL TERRITORY: Canberra 2 of B. in ANIC. NEW SOUTH WALES: Belubula eaves 10 B, in AM; North Albury 1 Q B, in NSWDA; Nyngan district 1 of M, in UQ; Wamoon 1 Q B, in NSWDA. QUEENS-LAND: Bundaberg 1 Q M, in QM; Maryborough 1 \(\Q \) M, in SAM; Richmond 1 O'M, in ANIC. SOUTH AUSTRALIA: Adelaide 10, 1 \(\text{B} \), in SAM; Lucindale 1 Q B, in SAM; Normanville 2 Q B, in SAM; Spilsby Is. 1 \(\text{P} \) B, in SAM; Stonywell 1 \(\text{P} \) B, in SAM. VICTORIA: Bamawn 20, 19 B, in SAM; Dandenong 1 Q M, in MV; Gembrook 1 \(\text{SM}, in MV; Lakes Entrance 1 \text{O}^{\text{T}} M. in MV; Mordiallac 1 O M, in MV. WESTERN AUSTRALIA: Borden 1 ♀ B, in SAM; Dumbleyung 10, 29 M, 10 B, in WAM; Ongerup 20, 19 B in SAM; Toompup 1 of B, in AM, 1 of, 1 \, B, in SAM; Wickepin 1 \(\text{M} \), in SAM.

Description. General body colour black with greyish short pubescence; median carina of scutellum ivory white; connexivum with posterior ²/₃-¹/₂ area of at least 5 visible segments with alternate black and yellow bands; abdominal venter with a row of sub-

ventral yellow spots on each side of midline and irregular pale spots and areas scattered between these rows.



Fig. 1 Coranus callosus holotype, dorsal view. Total body length 11.4mm.

Measurements are of macropterous holotype O, followed by ranges of other specimens examined in parentheses. Total length 11.4 (9.9-12.3); maximum width 3.06 (3.55-4.24).

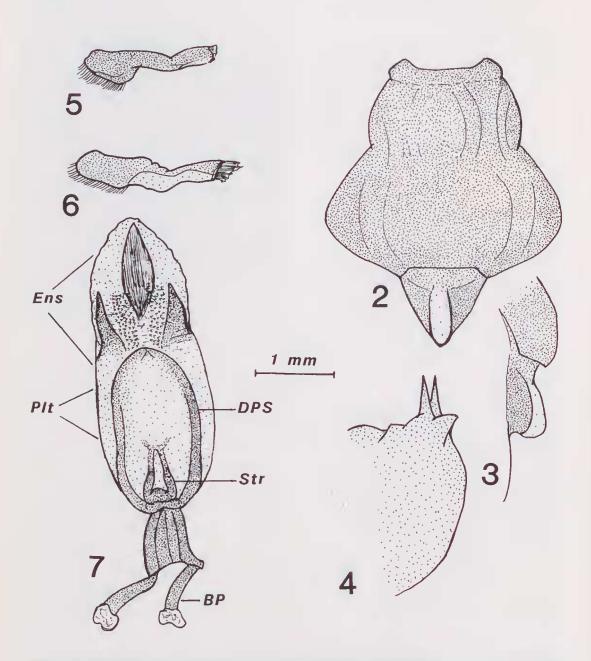
Head: Length 2.61 (2.28-2.60), width across eyes 1.51 (1.52-1.53), interoeular space 0.90 (0.80-0.87), interocellar space 0.54 (0.40-0.50), eye-ocellar space 0.30 (0.24-0.31); length of antennal segments: I, 2.00 (1.88-2.04); II, 0.80 (0.70-0.72); III, 1.00 (0.72-0.89).

Thorax: Length pronotum 2.88 (2.30-2.72), maximum width 3.15 (2.48-3.40); scutellum length 0.99 (0.80-1.13), width 1.35 (0.97-1.37); hemelytra almost fully covering abdomen in macropters, extending to anterior margin of 3rd visible tergum in braehypters, length hemelytra 6.63 (8.16) (macropters), 2.90 (micropters); length corium 4.42 (4.56) (macropters), 2.50 (micropters); width membrane 2.21 (2.56) (macropters), 0.92 (micropters).

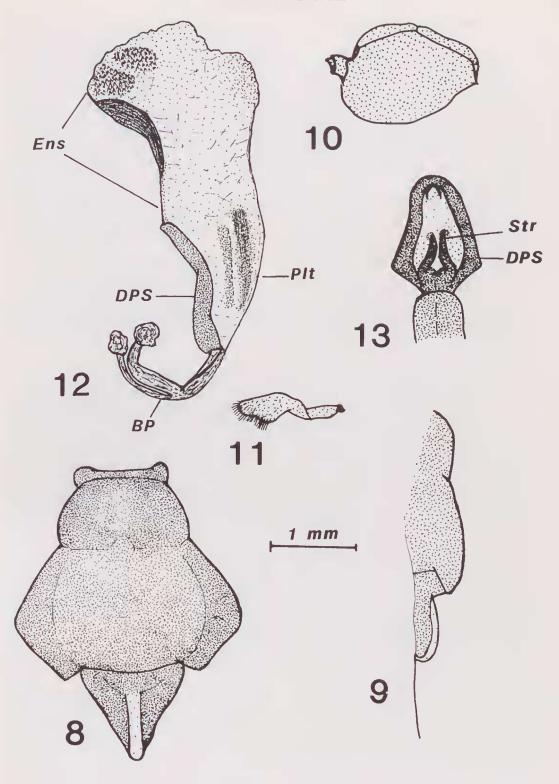
Male genitalia: Pygophore with processes on posterior end as in Fig. 4; paramere in macropters as in Fig. 5, in micropters as in Fig. 6; aedeagus as in Fig. 7.

Distribution. Known from all mainland Australian States and the Australian Capital Territory.

Notes. There is considerable variation in colour intensity and pattern. Some specimens almost completely lack yellow areas on venter (e.g. Maryborough and Bundaberg); some have yellow areas particularly on femora, base of tibiae, oblique line behind eyes, median line near base of head, and sides of anterior lobe of pronotum.



Figs 2-7. Coranus callosus: 2, pronotum and scutellum, dorsal view; 3, scutellum, lateral view; 4, pygophore, lateral view; 5, left paramere in macropter; 6, same in micropter; 7, aedeagus, dorsal view. Abbreviations: BP, basal plate; DPS, dorsal phallotheeal sclerite; Ens, cndosoma; Plt, phallotheea; Str, strut. Figs 4-7, not to scale.



Figs 8-13. Coranus trabeatus: 8, pronotum and scutclium, dorsal view; 9, same, lateral view; 10, pygophore, lateral view; 11, left paramere; 12, aedeagus, side view; 13, dorsal phallothecal scierite and associated structures, enlarged. Abbreviations as in Fig. 7. Figs 10-13, not to scale.

Coranus trabeatus Horváth (Figs 8-13)

Coranus trabeatus Horváth, 1902:609.

Type Material. LECTOTYPE - Q (designated here) "Tweed R. Lea", (following missing: left mid leg, right mid and hind tarsi, 4th segment of left antenna); in Hungarian Natural History Museum, Budapest. PARALECTOTYPE - Q, "Tamworth", in Hungarian Natural History Museum,

Budapest.

Additional Material. NEW SOUTH WALES: $1 \, \mathcal{Q}$, in QM; Comboyne $1 \, \mathcal{Q}$, in SAM; Coonabarabran 19, in SAM; Moree 1 o, in ANIC; Narrabri 1 Ω, in UQ; Waiwera, Narrabri 2 \, in ANIC. NORTHERN TERRITORY: Bessie Spring 8 km ESE Cape Crawford, 16°40'S 135°51'E, 1 Q, in ANIC; Daly River, 14°06'S 130°18'E, 1 o, in ANIC; Leach Lagoon, 14°38'S 132°38'E, 1 O, in NTM. QUEENSLAND: Archerfield 1 Q, in UQ; Brisbane 1 O, in MV, 2 Q, in UQ; Bundaberg 30', 39, in ANIC; Cleveland $1 \circ Q$, in UQ; Eidsvold $1 \circ Q$, in ANIC; Eubenangee 1 od. in UQ; Gatton 1 od., in UQ; Gayndah 1 pd., in UQ; Jondaryan 1 od., in UQ; Mareeba 1 of, 1 ♀, in UQ; Ormiston 1 ♀, in UQ; Rockhampton 1 ♂, in ANIC; Somerset Dam 1 \, in UQ; Toowoomba 1 \, \qquad , in UQ; Townsville 2 o, in SAM. SOUTH AUSTRALIA: Tapanappa near C. Jervis 1 ©, in SAM. TASMANIA: Dodges Ferry 1 Q, in ANIC; Launceston 2 of, 1 Q, in SAM; Ridgeway 1 Q, in MV; Swansea 1 Q, in Tasmanian Museum, Hobart. VICTORIA: Boronia 3 0, 4 \, in MV; Camperdown 1 \, in MV; Lilydale district 2 \, in MV; Neerim, Gippsland $1 \, \mathcal{Q}$, in MV; Valencia Creek, Gippsland 1 \, in SAM; Warburton district $1 \ Q$, in MV. WESTERN AUSTRALIA: Busselton-Bunbury Road 1 O', in SAM; Deep Dene, Karridale 1 \(\times \), in ANIC; Furnissdale 1 Q, in SAM; Herdsmans Lake 1 0, in WAM; N of Molecap Hill 20', in WAM.

Description. Colour as in original description.

Measurements are of lectotype Q, followed by ranges of other specimens examined in parentheses. Total length 10.7 (9.4-11.1), maximum width 3.57 (2.56-3.55).

Head: Length 1.98 (1.86-2.20), width across eyes 1.53 (1.32-1.53), interocular space 0.90 (0.74-0.84), interocellar space

0.40 (0.39-0.45), eye-ocellar space 0.20 (0.19-0.22); length of antennal segments: I, 1.76 (1.59-1.95); II, 0.56 (0.50-0.63); III, 0.80 (0.88-0.97).

Thorax: Pronotum in dorsal view (Fig. 8), lateral view (Fig. 9), length 2.61 (2.02-2.45); maximum width 3.24 (2.52-2.90); scuttellum length 0.99 (0.88-1.20), width 1.35 (1.08-1.40); hemelytra fully covering abdomen, length 6.63 (5.60-6.70), length corium 4.25 (3.47-4.16), width membrane 2.72 (2.30-2.40).

Male genitalia: Pygophore (Fig. 10), paramere (Fig. 11), aedeagus (Fig. 12), with dorsal phallothecal sclerite enlarged as in Fig. 13.

Distribution. Known from all Australian States and the Northern Territory.

Notes. The species may be readily distinguished from *callosus* by its reddish dorsal body and broad lateral areas on abdominal sternum.

Coranus fuscatus sp.nov. (Figs 14 - 17)

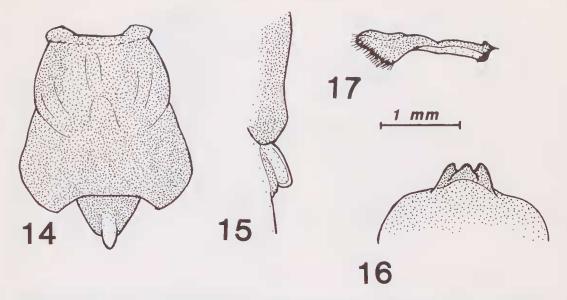
Type material. HOLOTYPE - \circlearrowleft B, N.W. Bundaberg, Queensland, on log, 3 June 1973, H. Frauca, in ANIC. PARATYPES - 1 \circlearrowleft , 4 \circlearrowleft B, same data as holotype, in ANIC and NTM.

Additional material. AUSTRALIA: 2 of B, BM 1935-545, in BM. NEW SOUTH WALES: Armidale, on rat careass 1 \(\rightarrow B, in ANIC: Barrington house Salisbury 1 of M, in UQ; Kincumber, SW Terrigal 1 \(\rightarrow M, in ANIC; Liverpool, 33°57'S 150°56'E, on Alternanthera philoxeroides 1 of M, in UQ. QUEENSLAND: Aratula 1 \(\rightarrow B, in UQ; Brookfield 1 of B, in UQ: Fletcher 1 of B, in QM; Lamington N.P. 1 of B, in UQ; Levers Plateau 1 \(\rightarrow B, in UQ; Roma 1 \) \(\rightarrow M, in SAM; \) \(\text{Tamborine 1 } \(\rightarrow B, in UQ. \)

Description. Generally uniformly black; median carina of scutellum particularly in apical ½ ivory white-yellow; oblique lines behind eyes, median line on neck area, base of tibiae yellowish; connexivum uniformly pale throughout; abdominal venter with indistinct pale spots.

Body narrow, elongate.

Measurements are of holotype of, followed by ranges when different, in parentheses. Total length 10.9 (11.3-12.4); maximum width 2.90 (3.00-4.00).



Figs 14-17. Coranus fuscatus: 14, pronotum and scutellum in brachypters, dorsal view; 15, same, lateral view; 16, apical part of pygophore; 17, left paramere. Figs 16,17, not to scale.

Head: Length 2.28 (2.40-2.56), width across eyes 1.45 (1.45-1.53), interocular space 0.80 (0.80-0.81), interocellar space 0.40 (0.48), eye-ocellar space 0.24; length of antennal segments: I, 2.04 (1.99-2.31); II, 0.72; III, 1.07 (0.96-0.97).

Thorax: Pronotum in dorsal and lateral view as in Figs 14 and 15, length 2.12 (2.40-2.50), maximum width 2.20 (2.40-2.50); scutellum length 0.64 (0.80-0.90), width 0.72 (0.72-0.85); hemelytra extending to posterior margin of last abdominal tergum in submacropters-macropters, narrowed, exposing lateral parts of body and extending to middle of 3rd visible abdominal tergum in brachypters, brachyptery more common than macroptery and submacroptery, length hemelytra 6.20 (macropters), 2.48 (2.50) (brachypters), length corium 1.96 (1.65) (macropters), 2.28 (2.28) (brachypters).

Male genitalia: Posterior area of pygophore as in Fig. 16; paramere (Fig. 17). Other details as in *callosus* and *trabeatus*.

Distribution. Known from New South Wales and southern Queensland.

Notes. In some specimens the pale spots on abdominal venter are almost absent. The species is related to *callosus* and *trabeatus*, but differs from both in having a narrow and uniformly black body.

Coranus erythraeus (Stål) (Fig. 18)

Colliocoris erythraeus Stål, 1863:41. Coranus erythraeus Stål, 1874:20.

Type Material. HOLOTYPE - \mathcal{Q} , "New Holl. 44 4", "erythraea Stål," both antennae except left 1st segment, right tibia and tarsi missing, in BM.

Description. Body generally dirty yellow, distal 2 segments of labium and apical ½ of membrane fuscous.

Body and appendages excluding hemelytra with short erect pilose hairs. Total length 15.8; maximum width 5.10.

Head: Length 3.42, width across eyes 2.25, interocular space 1.17, interocellar space 0.52, eye-ocellar space 0.16; length antennal segments; I, 3.15; remaining segments missing.

Thorax: Pronotum as in Fig. 18, lobes subequal, length 4.14, maximum width 4.32; scutellum length 1.08, width 1.89; hemelytra extending to last visible segment, length 9.01, length corium 5.44, width membrane 3.06; femoral surface without ridges in basal 2/3.

Distribution. Known from Australia (no precise locality).

Notes. The species is allied to *distinctus*, but differs from the latter by its dirty yellow colour.

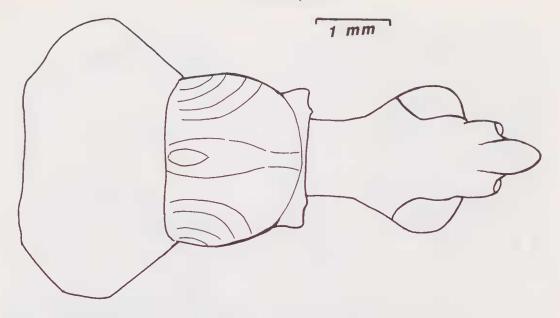


Fig. 18. Coranus erythraeus, head and pronotum, dorsal view.

Coranus distinctus (Miller), comb.nov. (Figs 19 - 21)

Eyreocoris distinctus Miller, 1951:953-955.

Type material. HOLOTYPE - ♀ MI, Killalpanima, 160 km E of Lake Eyre, H.J. Hillier (BM 1905-232), in BM.

material. Additional AUSTRALIA: Adelaide 1 ♀ MI, in SAM; Belgowan near Maitland, 34°20'S 137°30'E, 1 ♀ MI, in ANIC; Blackburn 1 ♂ M, in SAM; Callabonna 1 ♀ MI, in MV; Cooper's Creck 2 ♀ MI. in SAM; Coward Springs 1 ♀ MI, in SAM; Lake Eyre North Madigan Gulf, sulphur peninsula 1 0 M, in SAM; Lake Gairdner 1 2, in SAM; Innamincka 1 ♀ MI, in SAM; Koonalda Cave area, above ground 1 \mathcal{Q} MI, in SAM; Mt Lofty 1 \mathcal{Q} M, in SAM; Reed Beds 1 9 MI, in SAM; Wallaroo N beach sandhills 10 MI, in SAM; Whyalla MI. in SAM. WESTERN AUSTRALIA: Lake Varley 1 of M, in WAM; Southern Cross 1 \(\text{Y} \) M, in AM.

Description. Following are additions and/ or alterations to the original description. Colour variable considerably: femora uniformly black and not ferruginous in all specimens; middorsal stripe on abdomen almost lacking in some.

Macropterous or micropterous.

Measurements are of micropterous holotype ♀, with those of a macropterous O'

in parentheses. Total length 18.5 (17.9); maximum width 7.40 (6.20).

Head: Length 4.05 (3.72), width across eyes 2.61 (2.40), interocular space 1.44 (1.37), interocellar space 0.90 (0.72), cye-dellar space 0.45 (0.32); length antennal segments: I, all segments missing in holotype SOUTH. (3.80); II, (1.29); III, (1.88).

Thorax: Pronotum with posterior lobe slightly longer than anterior lobe, length 4.50 (4.16), maximum width 4.86 (4.88); scutellum length 0.54 (1.68), width 0.81 (2.74); length hemelytra 1.19 (11.20), length corium (7.16), width membrane (4.08).

Male genitalia: Pygophore posterior margin with processes as in Fig. 19; paramere spatulate as in Fig. 20; aedcagus as in Fig. 21.

Distribution. Known from South Australia and Western Australia.

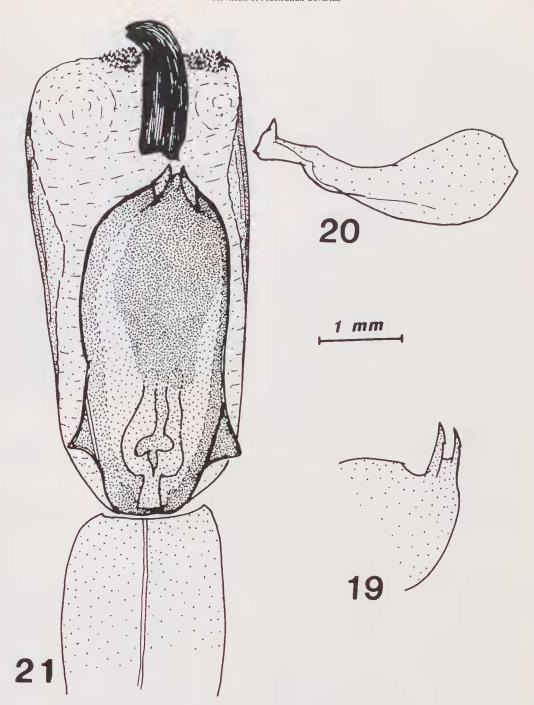
Notes. In one macropterous specimen (Lake Gairdner) the connexivum is uniformly pale, but not banded.

The species is allied to *erythraeus*, but differs from the latter in its black colour.

Coranus granosus (Stål) (Figs 22-27)

Coranus granosus Stål, 1874:20.

Type material. HOLOTYPE - \mathcal{Q} , "Adelaide", "Typus", in Naturhistoriska Riksmuseet, Stockholm.



Figs 19-21. Coranus distinctus: 19, apical part of pygophore; 20, right paramere; 21, aedeagus, dorsal view.

Additional material. NEW SOUTH WALES: Barrington Tops 1 \(\rho \), in AM; Bogan R. 2 \(\rho \), in AM; Bourke 1 \(\sigma \), in AM; Broken Hill 3 \(\sigma \), 1 \(\rho \), in SAM, 1 \(\sigma \) in QM; Cabbage Tree Creek, Clyde Mt 1 \(\rho \), in

ANIC; Caldwell 1 \(\text{Q} \), in MV; Mt Kosciusko 1 \(\text{Q} \), in SAM; Nyngan 1 \(\text{O}'\), 1 \(\text{Q} \), in UQ; Terrigal 1 \(\text{Q} \), in ANIC; Tibooburra 1 \(\text{Q} \), in ANIC. NORTHERN TERRITORY: 38 km NE by N Andado Homestead, 25°07'S

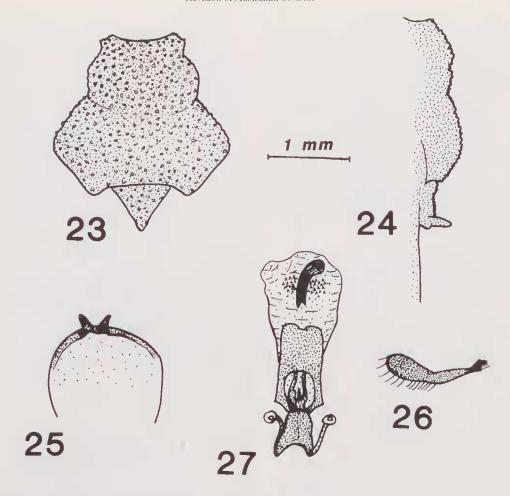
135°30′E 2 ♀, in ANIC; Coniston Station near Alice Springs 1 ♀, in SAM; Darwin 1 ♂ in NTM; Finke R. 1 o', in SAM; Iwupataka, 23°48′S 133°30′E 1 0′, in NTM; W of Mt Olga 1 ♀, in WAM; Southern Cross bore 40 km NW The Garden Homestead 1 \(\psi \) , in ANIC; 30 km N of Wauchope, 20°22'S 134°14′E 1 0′, in ANIC. QUEENSLAND: Coen R. 1 o, in SAM; Diamantina R. 1 o, 2 ♀, in SAM; Glenmorgan 1 ♂, in UQ; Muttaburra 1 9, in UQ: Noccundra 1 9, in ANIC; Richmond 2 0, in UQ. SOUTH AUSTRALIA: Adelaide 2 O', 4 Q, in SAM; Arkaba 1 ♀, in SAM; Pt Augusta 1 ♂, in SAM; Mt Barker 1 \(\text{?} \), in SAM; Bose, Mt Alec 1 9, in SAM; Burra, 128 km NNE Adelaide 1 0, in SAM; L. Callabonna 3 \, \text{,} in SAM; Callana 2 Q, in SAM; Cannewaukaninna dune, 16 km W of Ekadunna Homestead $2 \mathcal{Q}$, in SAM; Coorong $1 \mathcal{Q}$, in SAM; 32 km W Corowie Stn 1 o, in AM; Mt Eba Station 1 9, in SAM; 18 km south of Edwards Creek 28°30'S 135°52'E 1 \mathcal{Q} , in ANIC; Everard Rgs to Warburton Rgs (W.A.) 1 0, in SAM; Lake Eyre, Madigan Gulf, N. Sulphur Peninsula 2 0, 79 in SAM; Lake Eyre, Madigan Gulf, Sulphur Pen., Campbell's causeway 1 \emptyset , 2 \mathbb{Q} , in SAM; C. Jervis 1 o, in SAM; Kangaroo I. 1 \, in SAM; Ketchowla Stn. East of Hallett 1 9, in SAM; Lewiston Reserve, Two wells 1 \, in SAM; Mt Lofty 2 \(\text{?} \), in SAM; Moolooloo, 660m, Flinders Ra 1 O, in SAM; 8km N Morgan near Murray River 1 ♀, in SAM; Murray River $1 \circ Q$, in SAM; Nimbrin $1 \circ Q$, $1 \circ Q$, in SAM; Oodnadatta to Blood Creek 1 O', in SAM; Ooldea 2 ♂, 3 ♀, in SAM; Orrorro 1 \mathcal{P} , in SAM; Owieandana N Flinders Ra 1 \mathcal{P} , in SAM; Pearson I. 1 od, in SAM; Peterborough 2 \emptyset , 2 \mathcal{Q} , in SAM; Prospect 1 \mathcal{Q} , in SAM; 5 km from Roppermanna bore no. 2 (Etadunna) 1 ♀, in WAM; Spring Gully National Park near Clare 19, in SAM; Stoneleigh Pk 1 O', in SAM; Tirari Descrt, L. Kittakittoloo S. Shore end of 10, in WAM; Wardang 1. 1 \circ , in SAM; Whyalla 1 \circ , 2 \circ , in SAM; Wilpena Ck, under Eucalyptus camaldulensis bark 2 \, in SAM; Woods Flat $1 \circ 7$, in SAM; 40 km S or Yunta $1 \circ 9$, in SAM. VICTORIA: Bendigo 1 2, Lake Hattah 30,69, Inglewood 19, Kerang 20, Millgrove $1 \circ Q$, Redcliff $1 \circ Q$; all in MV. WESTERN AUSTRALIA: Balladonia Camp 5 \mathcal{O} , 7 \mathcal{O} , in SAM; Broomehill 4 \mathcal{O} , 3



Fig. 22. Coranus granosus holotype, dorsal view. Total body length 8.9mm.

Q, in WAM; Bulle 1 Q, in ANIC; Buntine 1 o, in SAM; Caiguna 1 o, in SAM; Cheritons Find 1 0, in WAM; Eneabba 29°49'S 115°16'E 1 O', in WAM; 3 km NE of Fraser Range Homestead 1 of, in ANIC; Fremantle 1 \, in ANIC; 5.6 km NW of Glen Eagle Picnic Area (63 km SE Perth) 1 0, in WAM; Greenough River mouth 1 \(\text{\text{\text{q}}} \), in WAM; 7 km E Merredin 1 ♀, in WAM; Minnivale 1 \mathcal{Y} , in WAM; Moorine Rock 1 \mathcal{O} , in WAM; Mullewa 5 \mathcal{Q} , in SAM; Nedlands 1 \mathcal{Q} , in ANIC; Nomans Lake 1 \mathcal{Q} , in ANIC; 70-75 km ENE of Norseman 1 of, in WAM; Penguin I. 1♀, in WAM; Swan R. 1♀, in SAM; Twilight Cave, Eucla Basin 1 0', 1 \, \, in ANIC; E Wallabyl I ♀, in WAM; 37 km SW Youanmi 28°45'S 118°31'E 1 0, in WAM.

Description. Generally fuscous. Following light yellowish brown: antennae, median line between ocelli and behind eyes, lateral areas of anterior lobe of pronotum, apical upcurved area of scutellum, connexivum with posterior ½ of each segment, sparse irregular spots latero-ventrally on abdomen,



Figs 23-27. Coranus granosus: 23, pronotum and seutellum, dorsal view; 24, same, lateral view; 25, apical part of pygophore; 26, left paramere; 27, aedeagus. Figs 25-27, not to scale.

irregular spots on femora, rings near base of tibiae. Membrane greyish with fuscous veins.

Body elongate ovate; body dorsally and appendages covered with minute granules in addition to grey silky hairs, bristles borne on granules.

Measurements are of holotype ♀, followed by ranges of other specimens examined in parentheses. Total length 8.9 (8.6-9.1); maximum width 2.91 (2.32-2.90).

Head: Length 1.78 (1.60-1.74), width across eyes 1.17 (1.13-1.18), interocular space 0.73 (0.64-0.67), interocellar space 0.33 (0.31-0.38), eye-ocellar space 0.15 (0.15-0.18); base of 1st and 2nd antennal segments subdivided, length of segments: 1, 1.69 (1.53-1.86); II, 0.45 (0.48); III, 0.88 (0.80-1.13).

Thorax: Pronotum (Fig. 23) length 1.86 (1.80-1.82), maximum width 2.18 (2.04-2.19); seutellum median keel with blunt tip and eurved upwards abruptly (Fig. 24), length 0.70 (0.54-0.68), width 0.82 (0.62-0.72); femoral surface slightly ridged; hemelytra slightly exceeding abdomen, lateral abdominal areas exposed, more in Q than in Q, length hemelytra 5.60 (5.40-5.60), length corium 3.47 (3.23-3.45), width membrane 1.80 (1.68-1.76).

Male genitalia: Pygophorc posterior margin as in Fig. 25; paramerc (Fig. 26); aedeagus (Fig. 27), endosoma with a large sclerotized plate and two groups of minute spines or denticles.

Distribution. Known from all over Australia except Tasmania.

Notes. There is considerable variation in colouration: in some specimens most of abdominal venter almost uniformly yellowish brown except for median fuscous line; in some most of tibiae also yellowish brown. This and the following species (sydnicus) agree with each other in having the femoral surface ridged, the connexivum with alternate dark and pale areas, and the general structure of the male genitalia. However granosus differs from sydnicus in having distinct granules on head and pronotum, a distinct fuscous reticulation to membrane, and the tip of scutellum abruptly curved upwards.

Coranus sydnicus (Mayr), stat.nov. (Figs 28 - 32)

Colliocoris griseus var. sydnicus Mayr, 1866:141. Coranus griseus var. sydnicus Stål, 1874:19. Coranus australicus Reuter, 1882:6. Syn.nov.

Type Material. Type of Colliocoris griseus var. sydnicus can not be found and is possibly lost. Coranus australicus Reuter, 1882, HOLOTYPE - O'M, "Austral boreal", "Thorey", "australicus Reuter Type", in Naturhistoriska Riksmuseet, Stockholm.

Additional material. NEW SOUTH WALES: Bogan R. 1 \(\text{M} \), in AM; Bondi 1 o'M, in AM; Coogee 1 o'M, in AM; Nyngan district 1 of M, in UQ; Sydney 2 of, 1 \, 2 M, in AM; Warrah 1 of M, in ANIC. TERRITORY: NORTHERN Creek 1 \(\text{M} \), in ANIC; Finke R. 1 \(\text{O}' \) M, in SAM. QUEENSLAND: Almaden 1 \(\rightarrow \) B, in AM; Bin Bin Range via Didcot 1 of M, in ANIC; Birdsville 1 9 M, in SAM; Brisbane 1 9 M, in QM; Cairns 1 O' M, in AM; Clermont 1 0, 1 \(\rightarrow \) M, in AM; Cunnamulla district 1 \(\text{M} \), in AM; Dunwich N Stradbroke I. 1 9 B, in UQ; Eidsvold 1 O'M, in ANIC; Ferny Grove 1 \mathcal{Q} M, in UQ; Fletcher 1 \mathcal{Q} M. in QM; Lansdown Station 1 O'M, in ANIC: Moggill 1 \mathcal{Q} M, in UQ; Stanthorpe 1 \mathcal{O} M, in QM; Toowoomba 1 of M, in UO. SOUTH AUSTRALIA: Cannewaukaninna dune 1 9 M, in SAM; Ferries - MeDonald N.P. 2 OM. in SAM; Flinders I. 1 9 M, in SAM; Parachilna, Flinders Range 1 \(\text{P} \) M, in SAM: Vivonne Bay, Kangaroo I. 1 9 M, in SAM. VICTORIA: Gunbower 1 9 B, in MV. WESTERN AUSTRALIA: Halletts Cove 1 o'B, in SAM; Mullewa 1 o', 3 ♀ M, in SAM.

Description. Generally fuscous with dense short greyish pubescence in addition to grey hair; antennae testaceous, base of corium margin, longitudinal lines above and below head and between and behind ocelli, median carina on scutellum, eonnexivum with posterior ½ of each segment pale or testaceous; abdomen above black, below fuscous black, pale spots all over; femora with extreme apices dirty testaceous, with fascia and longitudinal lines fuscous, tibia and tarsi dirty testaceous, tibia with fuscous base, a subbasal pale ring, remainder dirty testaceous; last tarsal segment fuscous; membrane uniformly fuscous.

Body elongate ovate. Measurements are of macropterous holotype \mathcal{O} of *Coranus australicus* Reuter, followed by ranges of other macropterous specimens examined in parentheses. Total length 8.7 (9.6-11.0); maximum width 2.21 (2.56-3.43).

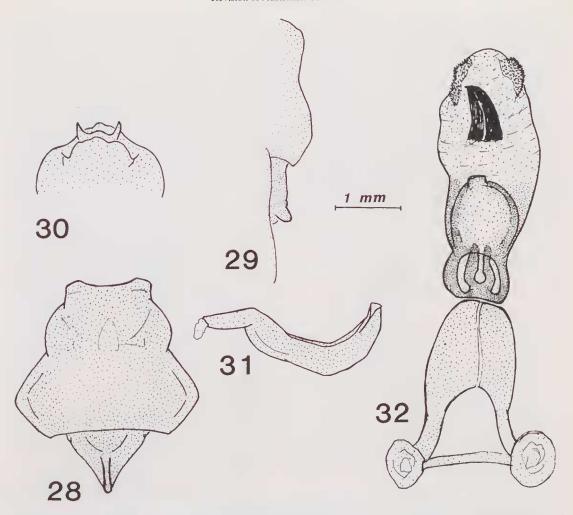
Head: Length 2.15 (2.04-2.30), width across eyes 1.44 (1.29-1.42), interocular space 0.72 (0.72-0.80), interocellar space 0.45 (0.32-0.41), eye - ocellar space 0.22 (0.16-0.25); length of antennal segments: I, 1.89 (1.76-1.88); II, 0.67 (0.65-0.70); III, 1.17 (0.97-1.29).

Thorax: Pronotal constriction laterally dcep (Fig. 28), length 2.16 (2.28-2.36), maximum width 2.25 (2.40-2.64); scutellum with median carina gradually curved upwards (Fig. 29), length 0.54 (0.55-0.71), width 0.90 (0.85-0.95); femoral surface ridged; hemelytra fully covering abdomen in macropters, up to last $1\frac{1}{2}$ visible segments exposed in submacropters, last $2\frac{1}{2}$ segments (in \bigcirc) and $2\frac{1}{2}-3\frac{1}{2}$ segments (in \bigcirc) exposed in brachypters, length hemelytra 4.76 (5.60-5.65), length corium 3.06 (3.40-3.70), width membrane 1.80 (1.90-2.40).

Male genitalia: Pygophore posterior part as in Fig. 30; paramere (Fig. 31); aedeagus (Fig. 32).

Distribution. Known from all Australian states and Northern Territory except Tasmania.

Notes. Reduvius griseus Rossi, 1790, a South African species, was transferred to the genus Colliocoris and the Australian specimens treated as its variety, sydnicus, since they differed in general colouration (Mayr 1866). Stål (1874) synonymized Colliocoris griseus sydnicus and the South African Harpactor capicola Stål, 1859 with another South



Figs 28-32. Coranus sydnicus: 28, pronotum and scutellum, dorsal view; 29, same, lateral view; 30, apical part of pygophore; 31, right paramere; 32, aedeagus. Figs 30-32, not to scale.

African species, Colliocoris papillosus Thunberg, 1822, and transferred it to the genus Coranus. The types of sydnicus and papillosus cannot be located and are possibly lost. However the types of C. capicola and C. australicus Reuter, 1881 are held at the Naturhistoriska Riksmuseet, Stockholm. On examination, the latter species is found to differ from the former in the following: the head longer, the pronotal furrow deeper, the ridges connecting dorsal longitudinal anterior and posterior lobes more distinct, and the apex of scutellum more raised. The type of australicus agrees well with the description, though scanty, of sydnicus in most major eharaeters, and hence is synonymized in the present study with the latter which is elevated to species level to distinguish it as a species restricted to Australia only. C. sydnicus differs from C. griseus (sensu stricto) in having labium pitchy black, abdomen above black, its middle with large elliptical red spot, inside of connexivum black, abdomen below pitchy black, margins with yellow and black spots.

There is considerable variation in eolouration even within one series, particularly of pronotum, legs and abdomen, but the basic pattern is similar to that described above.

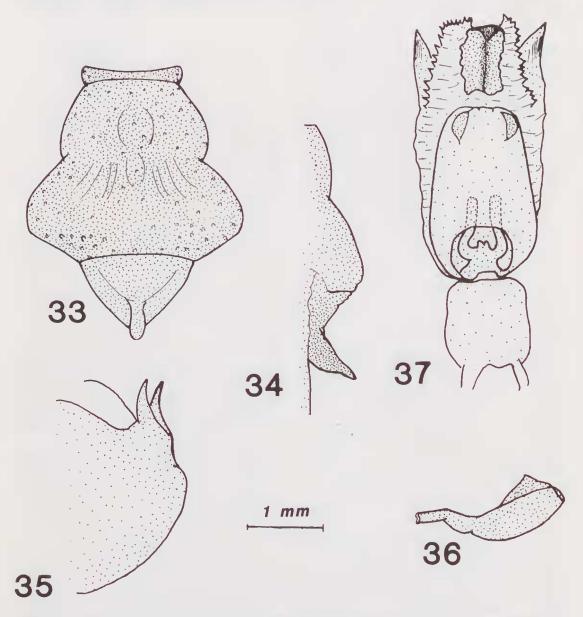
Coranus mundus (Miller), comb.nov. (Figs 33-37)

Austrocoranus mundus Miller, 1954:237-238.

Type material. HOLOTYPE - o' MI, Armadale, Western Australia, 12 May 1934, K.R. Norris, in ANIC. PARATYPE - 1 o' MI, same data as holotype, in BM.

Additional material. AUSTRALIAN CAPITAL TERRITORY: Canberra 2 of MI, in ANIC; Mt Tidbinbilla I of MI, in ANIC. NEW SOUTH WALES: Helensburgh 1 of MI, NSWDA; Nyngan district I o' MI, in UQ. QUEENSLAND: Mt Tamborine 1 9 MI, in MV. SOUTH AUSTRALIA: Coonalpyn I ♀ MI, in SAM; 10 km SW Culburra I O'MI, in SAM; Eyre Peninsula near the Frenchman 1 \(\Quad \text{MI} \), in SAM; Mt Lofty 1 of MI, in SAM; Murray River 1 9 MI, in MV, 1 of MI, in SAM; Pondalowie Bay, Yorke Peninsula I \(\text{MI} \), in

SAM; Stenhouse Bay I of MI, in ANIC; Warbla Cave Area Nullarbor Plains 1 \(\text{Q} \) MI, in SAM. TAS-MANIA: Conara near Campbelltown 1 of MI, in UQ. VICTORIA: Hattah Lakes N.P. 2 \(\text{Q} \) MI, in UQ; Mclbournc I \(\text{Q} \) MI, in MV; Murrayville 1 \(\text{Q} \) M, in MV. WESTERN AUSTRALIA: Abrucurrie 1 of MI, in UQ; Applecorss 1 \(\text{Q} \) MI, in WAM; Balladonia Camp I \(\text{Q} \) MI, in SAM; 40 km E by N Balladonia Homestead 1 of MI, in ANIC; Beverlcy I \(\text{Q} \) MI, in SAM; 60 km E of Esperance I \(\text{Q} \) , 1 \(\text{Q} \) MI, in ANIC;



Figs 33-37. Coranus mundus: 33, pronotum and scutellum, dorsal view; 34, same, lateral view; 35, apical part of pygophore; 36, left paramere; 37, aedeagus. Figs 35-37, not to scale.

Fitzgerald River N.P. 1 of M, in WAM; Frenchman Bay 1 Q MI, in ANIC; Geraldton I Q MI, in ANIC; 27 m W by N Gingin 1 of MI, in ANIC; 10 km E Greenhead, 30°04′S 114°58′E 2 Q MI, in WAM; 60 km E of Madura 1 Q MI, in WAM; Madurah I of MI, in SAM; Mundaring Weir 2 Q MI, in WAM; Naturaliste 1 of 1 Q MI, in ANIC; South Stirlings 1 Q M, in WAM; Thomas R. 23 km NW by W of Mt Arid Cape Arid 1 Q MI, in ANIC: Mt Yokine 1 Q MI, in MV.

Description. Generally black; ringlike subbasal area of tibia, irregular areas on ponotum yellow; connexivum with subapical area of segments 2-6 dark yellow; membrane uniformly fuscous; antennae brown; abdomen ventrally light brown with a median longitudinal narrow dark brown stripe.

Measurements are of micropterous holotype of, with range of macropterous specimens in parentheses. Total length 12.5 (10.2-11.0), maximum width 4.40 (2.98-3.96).

Head: Dorsum with few sparse granules, length 3.06 (2.45-2.53), width across eyes 1.96 (1.47-1.51), interocular space 1.08 (0.78-0.80), interocellar space 0.45 (0.42-0.46), eye-ocellar space 0.36 (0.27-0.30); all antennal segments of uniform thickness, length of segments: 1, antennac missing in holotype (2.41); 11, (0.78-0.85); III, (1.20-1.28).

Thorax: Pronotum length (Fig. 33) 2.52 (1.33-2.34), maximum width 2.52 (2.53-2.61); seutellum strongly curved dorso - posteriorly in apical ½ (Fig. 34), length 0.58 (0.58-0.65), width 0.97 (1.16-1.40); hemelytra almost fully covering abdomen in macropters, length hemelytra (5.48), length corium (3.55), width membrane (2.04-2.14), hemelytra reduced to about as long as scutellum in micropters.

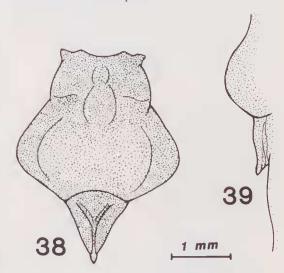
Male genitalia: Pygophore posterior margin as in Fig. 35; paramere (Fig. 36); aedeagus as in Fig. 37.

Distribution. Known from southern Australia including Tasmania.

Notes. In some specimens the abdominal venter is uniformly fuscous. The granules on the posterior lobe of pronotum are not so distinct in several specimens.

The species is allied to *australicus* but differs from the latter in possession of sparse hirsute granules on the posterior lobe of pro-

notum, the more pronounced curvature on the distal part of scutellum, and the slightly broader distal ½ of paramere.



Figs 38-39. Coranus dalyensis: 38, pronotum and scutellum, dorsal view; 39, same, lateral view.

Coranus dalyensis sp.nov. (Figs 38-39)

Type material. HOLOTYPE - 0, 76 km SW of Daly River, 14°11′S 130°08′E, Northern Territory, 2 September 1968, M. Mendum, distal 3 segments of right and 4th segment of left antennae, right mid tarsus missing, in ANIC.

Description. Generally fuscous; abdomen fuscous except for irregular small median areas of last 3 or 4 sternites and connexivum with posterior ½ of each abdominal segment and tip of scutellum yellow or pale.

Total length 9.8; maximum width 2.74.

Head: Length 2.06, width across eyes 1.16, interocular space 0.62, interocellar space 0.42, eye - ocellar space 0.12, length of antennal segments: I, 1.90; II, 0.58; III, 0.79.

Thorax: Pronotum dorsally as in Fig. 38, laterally as in Fig. 39, length 2.25, maximum width 2.58; seutellum only slightly curved dorso - posteriorly (Fig. 39) in apical area, length 1.16, width 1.04; legs slender, fore femora not much thicker than other femora; hemelytra fully covering abdomen, length 5.60, length corium 3.47, width membrane 1.76.

Male genitalia: Generally as in westraliensis (Figs 45-49).

Distribution. Known only from Daly River area (N.T.).

Notes. The species is allied to *mundus* but differs from the latter in lacking granules on pronotum, apex of scutellum only slightly curved, and lacking pale or yellow spots on the lateral area of pronotum.

Coranus monteithi sp.nov. (Figs 40-44)

Type material. HOLOTYPE - O, Lockerbie Area, Cape York, Queensland 23-27 April 1973, G.B. Monteith, in QM (Reg. No. T.10244). PARATYPE - O, same data as holotype except 14-18 April 1973, in QM (Reg. No. T.10245).

Additional material. AUSTRALIA: W.W. Froggatt Collection 1 of, in ANIC.

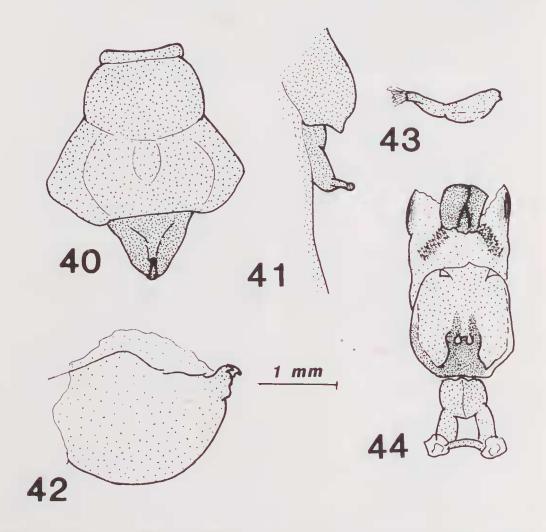
Description. Generally black; following yellow; apex of scutellum, connexivum, pygophore, paramere and disc of venter of 2-3 segments preceding pygophore; basal lateral area of hemelytra pale.

Body with brush of bristle-like hairs in addition to shiny greyish pubescence.

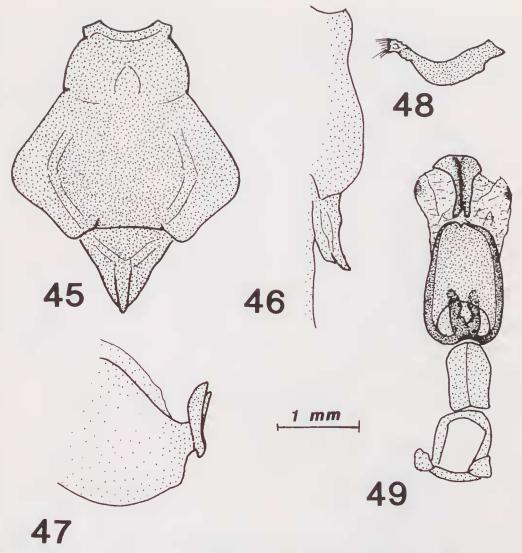
Body elongate-ovate; appendages particularly antennae slender. Total length 9.5; maximum width 2.40.

Head: Length 2.02, width across eyes 1.32, interocular space 0.67, interocellar space 0.34, eye - ocellar space 0.20, antennal segment 3 thicker than other segments, length of segments: I, 2.21; II, 0.58; III, 1.55.

Thorax: Pronotum with posterior lobe area coarsely punctate, length 1.98, maximum width 2.12; scutellum median



Figs 40-44. Coranus monteithi: 40, pronotum and scutellum, dorsal view; 41, same, lateral view; 42, pygophore; 43, left paramere; 44, aedeagus. Figs 42-44, not to scale.



Figs 45-49. Coranus westraliensis: 45, pronotum and scutellum, dorsal view; 46, same, lateral view; 47, apical part of pygophore; 48, left paramere; 49, aedeagus. Figs 47-49, not to scale.

carina strongly curved dorsally, apically rounded, length 0.66, width 0.96; hemelytra well exceeding abdomen, length 5.60, length corium 3.30, width membrane 1.96.

Male genitalia: Pygophore as in Fig. 42; paramere (Fig. 43); aedeagus (Fig. 44).

Distribution. Known only from northern Queensland.

Coranus westraliensis sp.nov. (Figs 45-49)

Type material. HOLOTYPE - 0, 7 km South Karratha, N.W. Coastal Hwy, Western Australia, 17 February 1973, E.M.

Exlcy, distal 2 segments of left and 4th segment of right antennae missing, in QM (Reg. No. T.10246). PARATYPES - 1 0, same data as holotype, in UQ; 1 0, Coppin Pool area 30 km South of Mt Bruce, N.W. Divide, Western Australia, 10-13 May 1980, T.F. Houston *et al.*, in WAM.

Description. Dorsally fuscous; abdomen generally orange - brown, with irregular broad sublateral bands and a median line fuscous.

Measurements are of holotype \circlearrowleft , followed by those of a paratype \circlearrowleft in parentheses. Total length 10.5 (10.2); maximum width 3.06 (3.00).

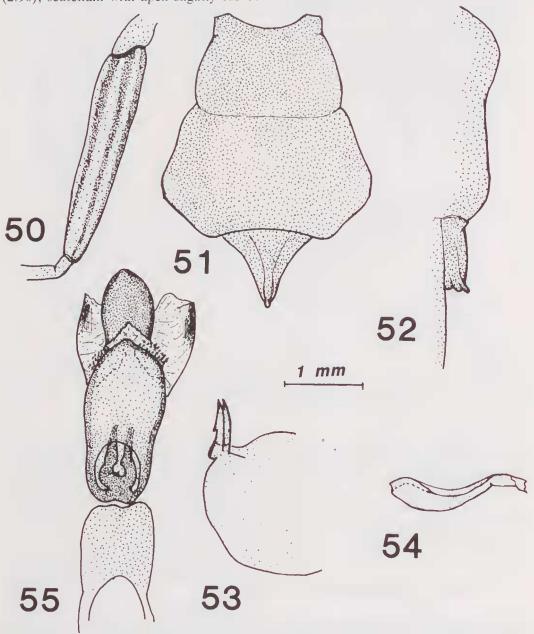
Head: Length 2.17 (2.10), width across eyes 1.26 (1.20), interocular space 0.60 (0.59), interocellar space 0.35 (0.34), eye ocellar space 0.19 (0.21); antennal segments I - III subdivided near base, length of segments: I, 1.75 (1.65); II, 0.42; III, 1.00 (0.93).

Thorax: Pronotum (Fig. 45) coarsely punctate particularly on posterior lobe, length 2.33 (2.45), maximum width 2.82 (2.90); scutellum with apex slightly curved

postero-dorsal (Fig. 46), length 0.97 (0.96), width 1.13 (1.10); hemelytra fully covering abdomen, length 5.90 (5.60), length corium 3.72 (3.60), width membrane 2.04 (2.00).

Male genitalia: Pygophore with projection on posterior margin as in Fig. 47; paramere (Fig. 48); aedeagus (Fig. 49), conjunctiva without distinct spinule area.

Distribution. Known only from Western Australia.



Figs 50-55. Coranus fuscilineatus: 50, fore femur showing colour pattern; 51, pronotum and scutellum, dorsal view; 52, same, lateral view; 53, apical part of pygophore; 54, left paramere; 55, aedeagus. Figs 53-55, not to scale.

Coranus nigritus sp.nov.

Type material. HOLOTYPE - Q, Whyalla, South Australia, 30 August 1947, D.S., antennae, mid right leg, tarsi of fore and hind legs missing, in MV.

Description. Differs from westraliensis in

the following:

Generally black; connexivum, two broad submedian bands on abdominal venter and irregular spots in between bands pale.

Total length 10.9; maximum width 3.23.

Head: Length head 2.32, width across eyes 1.53, interocular space 0.72, interocellar space 0.48, eye - ocellar space 0.24.

Thorax: Pronotum with posterior lobe less than 2× as long as anterior lobe, length 2.56, maximum width 2.56; scutellum more abruptly curved postero-dorsal, length 0.72, width 0.89; femora more thickened in proportion to other segments of legs; length of hemelytra 6.44, length corium 3.96, width membrane 2.25.

Distribution. Known only from South Australia.

Coranus fuscilineatus sp.nov. (Figs 50-55)

Type material. HOLOTYPE - ♂, 60 km SE of Normanton, Queensland, 13 October 1965, A. Mesa and R. Sandulski, 4th segment of both antennae missing, in ANIC.

Description. Generally dirty yellow; dorsum of head excluding median yellow line behind eyes, longitudinal areas on anterior lobe of pronotum, apex of labium, eyes, longitudinal lines on femora as in Fig. 50, fuscous; 3 median and submedian ventral bands on abdomen light fuscous.

Body and appendages with short greyish shiny pubescence in addition to long bristly hairs.

Body elongate ovate. Total length 11.1; maximum width 2.82.

Head: Length 2.41, width across eyes 1.24, interocular space 0.70, interocellar space 0.42, eye-ocellar space 0.31; length of antennal segments: 1, 2.56; II, 0.66; III, 1.08.

Thorax: Pronotum with posterior lobe about 1½ times as long as anterior lobe (Fig. 51), length 2.53, maximum width 2.41; scutellum postero-dorsally curved as in Fig. 52, length 0.80, width 0.89; hemelytra fully covering abdomen, length 6.12, length corium 3.63, width membrane 1.60.

Male genitalia: Pygophore paired apical processes notched at about half length (Fig. 53); paramere (Fig. 54); aedeagus (Fig. 55).

Distribution. Known only from north

Queensland.

Notes. The species may be distinguished from *westraliensis* by its general coloration, and its pair of notched processes on the pygophore.

Coranus aridellus sp.nov. (Figs 56-61)

Type material. HOLOTYPE - ♂, 5 km SE of Ooraminna Rockhole, Northern Territory, 9 April 1981, M.B. Malipatil and J. Hawkins, in NTM. PARATYPES - 1 ♂, same data as holotype, in NTM; 1 ♀, 5 km South of Aileron, Northern Territory, 5 April 1981, M.B. Malipatil and J. Hawkins, in NTM; 1 ♂, Nyngan district, New South Walcs, 1-9 February 1960, T.E. Woodward, in UQ.

Additional material. NEW SOUTH WALES: Fowlers Gap Research Station, 31°05′S 141°42′E, 1 ♀, in ANIC. WEST-ERN AUSTRALIA: Nullarbor 1 ♀, in ANIC.

Description. Generally fuscous; most of scutcllum particularly Y - shaped carina, broad areas on pronotal posterior lobe, median line on head behind ocelli, area surrounding ocelli, areas on legs particularly femora and tibia, lateral areas of abdominal venter yellow; connexivum with anterior ½ of each segment blackish; disc of abdominal venter fuscous with yellow spots.

Elongate ovate insects. Measurements are of holotype O with paratype Q, when different, in parentheses. Total length 9.5 (8.9); maximum width 2.74 (2.73).

Head: Length 1.95 (1.78), width across eyes 1.14 (1.13), interocular space 0.50 (0.61), interocellar space 0.35 (0.35), eye ocellar space 0.18 (0.20). Length antennal segments: I, 1.40 (1.43); II, 0.46; III, 0.60 (0.59).

Thorax: Pronotum length 1.95, maximum width 2.40 (2.56); scutellum broad, apex abruptly pointed or narrowed (Fig. 57), length 1.04 (1.12), width 1.21 (1.15); hemelytra fully covering abdomen, length 5.12 (5.20), length corium 3.31 (2.98), width membrane 1.88 (1.90).

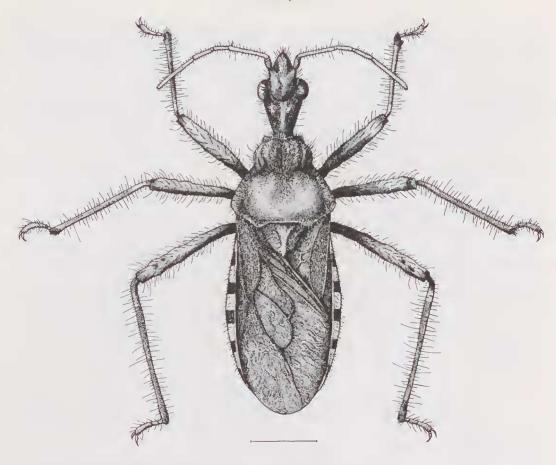


Fig. 56. Coranus aridellus holotype, dorsal view. Scale line 1.75mm.

Male genitalia: Pygophore with apical end produced as in Fig. 59; paramere (Fig. 60), aedeagus (Fig. 61).

Distribution. Known from arid inland areas of New South Wales, Western Australia and the Northern Territory.

Notes. There is considerable variation in coloration even within the topotypic series; in the Ooraminna Rockhole paratype most of the abdominal venter disc is pale; in the Nyngan district paratype almost the entire abdominal venter is uniformly pale; in all females most of the abdominal venter is uniformly black; in the Aileron paratype most of pronotal posterior lobe is pale.

Coranus bicoloratus sp.nov. (Figs 62-63)

Type material. HOLOTYPE - ♀, Lake Eyre, North Madigan Gulf, South Australia, dead on salt surface, I November 1966, G.F. Gross, in SAM.

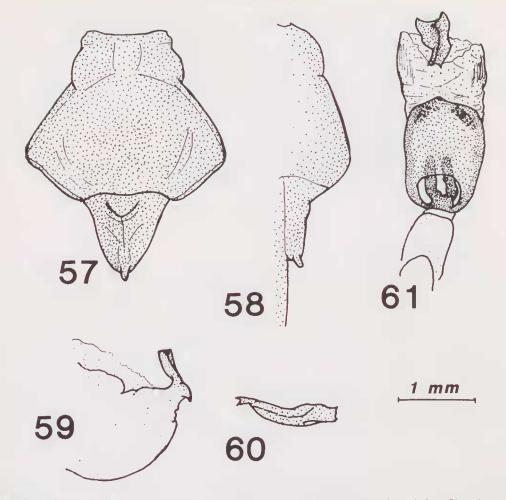
Description. Generally black; most of corium, apical ½ projected area of seutellum, connexivum with distal ½ of each segment yellow; apical ⅓ of corium fuscous; abdomen appearing banded from above owing to alternate fuscous and yellow areas.

Total length 8.5; maximum width 2.64.

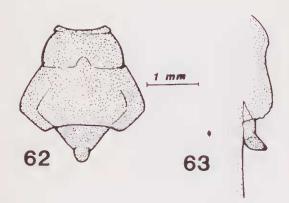
Head: Length 1.75, width across eyes 1.05, interocular space 0.51, interocellar space 0.42, eye - ocellar space 0.11; length of antennal segments: I, 1.78; II, 0.46; III, missing in type.

Thorax: Pronotum with posterior lobe slightly less than 2× as long as anterior lobe, length 1.86, maximum width 2.20; scutellum gradually curved dorso-posteriorly, apex narrowly rounded, length 0.60, width 0.96; hemelytra fully eovering abdomen, length 2.74, length corium 1.68, width membrane 1.76.

Distribution. Known only from South Australia.



Figs 57-61. Coranus aridellus: 57, pronotum and scutellum, dorsal view; 58, same, lateral view; 59, apical part of pygophore; 60, left paramere; 61, aedeagus. Figs 59-61, not to scale.



Figs 62-63. Coranus bicoloratus: 62, pronotum and scutellum, dorsal view; 63, same, lateral view.

ACKNOWLEDGEMENTS

I thank the curators of the above mentioned museums and institutions for the loan of specimens. Types held at the British Museum (Natural History), London and Naturhistoriska Riksmuseet, Stockholm were examined while I held a Churchill Fellowship. I am grateful to Dr G. Monteith (Queensland Museum) for going through the manuscript, and Mr D. Percival for preparing Fig. 56.

REFERENCES

Curtis, J. 1833 British entomology; being illustrations and descriptions of the genera of insects found in Great Britain and Ireland. Volume 10. Author: London.

- Horváth, G. 1902 Descriptions of New Hemiptera from New South Wales. *Termeszetrajzi Fuzetek* **25**:601-612.
- Mayr, G. 1866 Hemiptera. In: Reise der Ostereichischen Fregatte Novara um die Erde in den Jahren 1857, 1858, 1859. Zoologischer Teil 2, Abt. 1. Karl Gerold's Sohn: Wien.
- Miller, N.C.E. 1951 XC. New Reduviidae in the Collection of the British Museum (Natural History) V1. Annals and Magazine of Natural History (12)4:945-955.
- Miller, N.C.È. 1954 A new subfamily and new genera and species of Australian Hemiptera -Heteroptera. *Proceedings of the Linnean Soci-*

- ety of New South Wales 78:233-240.
- Rcuter, Ó.M. 1881 Ad cognitionem Reduviidarum mundi antiqui. *Acta Societas Sciantiarum Fennicae* 12:271-339.
- Stål, C. 1863. Formae Speciesque novae Reduviidarum.

 Annales de la Societe Entomologique de France
 (4)3:25-58.
- Stål, C. 1874 Enumcratio Reduviidarum Europae, Africae, Asiae et Australieae. Kongl Svenska Vetenskaps - Akademiens Handlingar 12(1):3-186.

Accepted 10 June 1986